

Journal of Ultrastructure Research

VOLUME 18 • 1967



Digitized by the Internet Archive
in 2024

JOURNAL OF
**Ultrastructure
Research**

Editor

FRITIOF S. SJÖSTRAND

Editorial Board

B. AFZELIUS • F. B. BANG • R. J. BARNETT • W. BERNHARD

T. W. BLACKSTAD • A. CLAUDE • A. I. COHEN • V. E. COSSLETT • W. TH. DAEMS

A. J. DALTON • R. EKHOLM • J. FARRANT • A. FREY-WYSSLING • A. J. HODGE

R. W. HORNE • H. E. HUXLEY • S. INOUÉ • E. KELLENBERGER • H. LATTA • J. H. LUFT

S. L. PALAY • D. C. PEASE • J. B. LE POOLE • J. T. RANDALL • J. F. REGER

J. A. G. RHODIN • D. C. ROGERS • L. E. ROTH • CH. ROUILLER

E. RUSKA • W. J. SCHMIDT • H. THEORELL • A. TISELIUS

W. G. WHALEY • R. W. G. WYCKOFF

Volume 18 • 1967



ACADEMIC PRESS INC., PUBLISHERS, NEW YORK AND LONDON

COPYRIGHT ©, 1967, BY ACADEMIC PRESS INC.

All Rights Reserved

*No part of this volume may be reproduced in any form,
by photostat, microfilm, or any other means,
without written permission from
the publishers.*

Printed in Sweden

Almqvist & Wiksells

BOKTRYCKERI AKTIEBOLAG

UPPSALA 1967

Contents of Volume 18

NUMBERS 1-2, APRIL 1967

ROLF SELJELID. Endocytosis in Thyroid Follicle Cells. III. An Electron Microscopic Study of the Cell Surface and Related Structures	1
BEAL B. HYDE. Changes in Nucleolar Ultrastructure Associated with Differentiation in the Root Tip	25
TOSHIHIKO MATSUSAKA. Lamellar Bodies in the Synaptic Cytoplasm of the Accessory Cone from the Chick Retina as Revealed by Electron Microscopy	55
K. W. JONES. The Induction of Paracrystalline Thread-Complexes in the Nuclei of Amphibian Cells by Actinomycin D and Other DNA-Binding Antibiotics	71
J. NEAL MIDDELKAMP, GIANFRANCO PATRIZI, and CHARLES A. REED. Light and Electron Microscopic Studies of the Guinea Pig Cytomegalovirus	85
WILLIAM P. JOLLIE and LUDMILA G. JOLLIE. Electron Microscopic Observations on the Yok Sac of the Spiny Dogfish, <i>Squalus acanthias</i>	102
DOUGLAS G. SILVA. The Ultrastructure of Crystal-Containing Cells in the Colonic Epithelium of Mice	127
MELVILLE J. PHILLIPS, NALIN J. UNAKAR, GERALD DOORNEWAARD, and JAN W. STEINER. Glycogen Depletion in the Newborn Rat Liver. An Electron Microscopic and Electron Histochemical Study	142
ALEXANDER R. DOBERENZ and RALPH W. G. WYCKOFF. The Microstructure of Fossil Teeth	166
Y. MARIKOVSKY and D. DANON. A Micromethod for Fixation and Embedding of Separated Blood Cell Fractions for Electron Microscopy	176
JOHANNES A. G. RHODIN. The Ultrastructure of Mammalian Arterioles and Precapillary Sphincters	181
Proceedings of the Scandinavian Society for Electron Microscopy	224

NUMBERS 3-4, MAY 1967

ROLF SELJELID. Endocytosis in Thyroid Follicle Cells. IV. On the Acid Phosphatase Activity in Thyroid Follicle Cells, with Special Reference to the Quantitative Aspects	237
R. F. MITCHELL. Structural Changes in Swollen Ascites Tumor Mitochondria	257
R. F. MITCHELL. Localized Swelling of the Inner Compartment in Negatively Stained Mitochondria	277
J. D. PICKETT-HEAPS. Further Observations on the Golgi Apparatus and Its Functions in Cells of the Wheat Seedling	287
SANFORD I. ROTH and WALLACE A. JONES. The Ultrastructure and Enzymatic Activity of the Boa Constrictor (<i>Constrictor constrictor</i>) Skin During the Resting Phase	304

TAKAO SETOGUTI. Ultrastructure of Guanophores	324
E. W. VAN LENNEP and W. J. R. LANZING. The Ultrastructure of Glandular Cells in the External Dendritic Organ of Some Marine Catfish	333
M. T. SILVA. Electron Microscopic Study on the Effect of the Oxidation of Ultrathin Sections of <i>Bacillus cereus</i> and <i>Bacillus megaterium</i>	345
THEODORE K. GREENLEE, JR. and RUSSELL ROSS. The Development of the Rat Flexor Digital Tendon, a Fine Structure Study	354
SHUICHI KARASAKI. An Electron Microscopic Study on the Crystalline Structure of the Yolk Platelets of the Lamprey Egg	377
RICHARD M. EAKIN and JEAN L. BRANDENBURGER. Differentiation in the Eye of a Pulmonate Snail <i>Helix aspersa</i>	391
J. F. REGER, A. BARNETT, and M. P. POGER. Observations on an Unusual Membrane Complex Found in Gregarines Parasitic in the Barnacle <i>Balanus tintinnabulum</i>	422
WALTER HALPERIN and WILLIAM A. JENSEN. Ultrastructural Changes during Growth and Embryogenesis in Carrot Cell Cultures	428
G. ROSATI. Enzyme Treatment of Glycogen Particles in Rat Liver and Muscle	444
R. J. STEPHENS and R. F. BILS. Ultrastructural Changes in the Developing Chick Liver. I. General Cytology	456
Announcements	475

NUMBERS 5-6, JUNE 1967

ROLF SELJELID. Endocytosis in Thyroid Follicle Cells. V. On the Redistribution of Cyto-somes following Stimulation with Thyrotropic Hormone	479
ROBERT C. BUCK. Mitosis and Meiosis in <i>Rhodnius Prolixus</i> : The Fine Structure of the Spindle and Diffuse Kinetochores	489
S. BLÜMCKE and K. MORGENROTH, JR. The Stereo Ultrastructure of the External and Internal Surface of the Cornea	502
DOROTHY F. TRAVIS, CAMILLE J. FRANÇOIS, LAURENCE C. BONAR, and MELVIN J. GLIMCHER. Comparative Studies of the Organic Matrices of Invertebrate Mineralized Tissues	519
Y. HAGIWARA, J. C. DAN, and A. SAITO. Studies on the Acrosome. VIII. The Intact Starfish Acrosome	551
J. C. DAN and Y. HAGIWARA. Studies on the Acrosome. IX. Course of Acrosome Reaction in the Starfish	562
H. W. BEAMS and SANT S. SEKHON. Fine Structure of the Body Wall and Cells in the Pseudocoelom of the Nematode <i>Rhabditis pellio</i>	580
JAMES F. REGER. The Organization of Sarcoplasmic Reticulum in Direct Flight Muscle of the Lepidopteran <i>Achalarus lyciades</i>	595
J. R. CASLEY-SMITH. Quantitative Electron Microscopy: Methods for Dry Mass Determination, Avoiding Errors Introduced by Irradiation Changes and Contaminating Films	600
A. ASCENZI, E. BONUCCI, and D. STEVE BOCCIARELLI. An Electron Microscope Study on Primary Periosteal Bone	605
JEROME STEMPAK. Serial Section Analysis of Mitochondrial Form and Membrane Relationships in the Neonatal Rat Liver Cell	619

C. RICHARD ZOBEL, R. J. BASKIN, and S. L. WOLFE. Electron Microscope Observations on Thick Filaments Isolated from Striated Muscle	637
B. Y. YOO and S. T. BAYLEY. The Structure of Pores in Isolated Pea Nuclei	651
MASAHIRO KAJIMA, NEHAMA SHARON, and MORRIS POLLARD. Virus-like Particles in Cultures of McCoy Cells	661
P. RÖHLICH and I. OLÁH. Cross-Striated Fibrils in the Endothelium of the Rat Myometrial Arterioles	667
R. G. KESSEL. An Electron Microscope Study of Spermiogenesis in the Grasshopper with Particular Reference to the Development of Microtubular Systems during Differentiation	677
EDMUND B. SANDBORN, S. DUCLOS, PAUL-EMIL MESSIER, and JEAN-J. ROBERGE. Atypical Intestinal Striated Muscle in <i>Drosophila melanogaster</i>	695
Author Index	703
Subject Index	704

